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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/831,049	05/04/2001	Marcos Katz	P 278027	8228

909 7590 10/20/2005

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EXAMINER

GELIN, JEAN ALLAND

ART UNIT	PAPER NUMBER
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2688

DATE MAILED: 10/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/831,049

Applicant(s)

KATZ, MARCOS

Examiner

Jean A. Gelin

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2681

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4-7, 12-15, 22-23, 25, 26 is/are allowed.
- 6) ☒ Claim(s) 1-3, 6-13, 16-21 and 24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. This is in response to the Applicant's amendments and arguments July 26, 2005 in which claims 1, 2, 4, 5, 11, 12, 14, and 15 have amended, and claims 21-26 have been added. Claims 1-26 are currently pending.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3, 6-13, 16-20, 21, and 24 rejected under 35 U.S.C. 103(a) as being unpatentable over Kotzin (US 5,455,962) in view of Satoshi (JP Pub. No. 10256971 A).

Regarding claims 1, 2, 11, 12, 21, and 24, Kotzin teaches a data transmission method used in a radio system comprising a subscriber terminal (10) and at least one base station (21) which transmits signals to the subscriber terminal by means, of its antenna (22, 23) (col. 3, lines 19-30), the method comprising determining the quality of the signals received by the subscriber terminal by comparing the received signals with at least one signal quality threshold level (col. 5, line 59 to col. 6, line 25), sending to the base station (23), which transmitted the signal that exceeded the threshold, information on the antennas, which transmitted the signals that exceeded the threshold (i.e., MS sends information to BS regarding signal quality, col. 5, lines 50 to col. 6, line 25).

Kotzin fails to teach selecting from the transmission directions, from which the signal that exceeded the threshold were received, a transmission direction or directions in which to continue transmission of the signal to said subscriber terminal.

However, the preceding limitation is known in the art of communications. Satoshi teaches when the threshold value crosses the limit the directional antenna for communication for the mobile station is switched from the antenna 311b to one of directional antennas 311(a, c-f) to continue communication (see the abstract provided by the Applicant). Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to implement the technique of Satoshi within the system of Kotzin in order to select directional antenna that receives good signal quality to prevent a change in the transmission direction of the received signal.

Regarding claims 3 and 13, Kotzin in view of Satoshi teaches all the limitations above. Kotzin further teaches when the quality of several signals is within the acceptable levels, information on the quality of the signals is sent to the base station (23), and the base station can, on the basis of the information, decide which antenna it will use to continue transmitting the signal (col. 6, lines 1-43).

Regarding claims 6 and 16, Kotzin in view of Satoshi teaches all the limitations above. Kotzin further teaches if the quality of the signal received by the subscriber terminal (10) is below the lowest acceptable quality level, information on the quality of the above-mentioned signal is sent to the base station which, after receiving the information, interrupts the transmission of the poor-quality signal (col. 6, lines 11-25).

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Regarding claims 7, 9, 17, and 19, Kotzin in view of Satoshi teaches all the limitations above. Kotzin further teaches the signal is transmitted to the subscriber terminal (10) by means of beams, and the final decision on the transmission antenna, transmission beam to be used by the base station is made in the base station (21) (col. 5, line 59 to col. 6, line 10).

Regarding claims 8, 10, 18, and 20, Kotzin in view of Satoshi teaches all the limitations above. Kotzin further teaches the signal is transmitted to the subscriber terminal (10) by means of beams, and the final decision on the transmission antenna, transmission direction or beam to be used by the base station is made in the subscriber terminal (10) (col. 6, lines 11-43).

Allowable Subject Matter

4. Claims 4, 5, 14, 15, 22, 23, 25, and 26 are allowed.

Response to Arguments

5. Applicant's arguments filed 07/26/05 have been fully considered but they are not persuasive.

The Applicant argues that Satoshi teaches a mobile station equipped with antenna selecting switches to choose its own directional antenna; Satoshi merely teaches changing the antenna that a mobile station uses when received signal quality is deteriorated. To the contrary, in accordance with the claimed invention the Applicant teaches the base station then selects from transmission directions from which the signal

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that exceeded the threshold was received, a transmission direction or directions in which to continue transmission of the signal to said subscriber terminal or selects from the antennas, an antenna or antennas to continue transmission of the signal. Therefore, the claimed invention involves selecting from transmission directions or antennas from which the signal that exceeded a quality threshold was received, a transmission direction or directions or an antenna or antennas in which a base station continues transmission of the signal to a subscriber terminal.

However, the Examiner disagrees with the Applicant's assertions. Satoshi teaches when the quality of the signal is deteriorated the mobile station selects another directional antenna to continue communication (as admitted by the Applicant in paragraph 4 of page 10 of the remarks). Satoshi discloses that the mobile station (not the base station) has the capability to switch to a different directional antenna based on the quality of the signal. It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the features of the mobile station taught by Satoshi within a base station, since it has been held that rearranging parts of an invention involves only routine skill in the art. In re Japikse, 86 USPQ 70.

NOTE: is the transmission direction is equal to an antenna, a receiver, or a transmitter? Please clarify whether the claims call for selecting the direction of a signal or selecting a signal from the transmission direction. Selecting a signal from the transmission direction is not clear.

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Conclusion

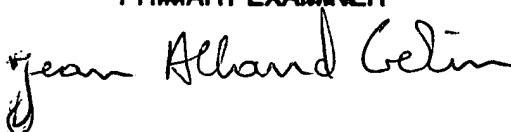
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean A. Gelin whose telephone number is (571) 272-7842. The examiner can normally be reached on 9:30 AM to 7:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on (571) 272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

**JEAN GELIN
PRIMARY EXAMINER**

JGelin
October 16, 2005

A handwritten signature in cursive script that reads "Jean Alband Gelin". The signature is written in dark ink and is positioned below the printed name and title of the examiner.